UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,158	12/22/2003	Einat Amitay	IL920030045US1	7754
Stephen C. Kau	7590 11/12/200 <b>fman</b>	EXAMINER		
Intellectual Prop	perty Law Dept.	PHAM, MICHAEL		
IBM Corporation P.O. Box 218 Yorktown Heights, NY 10598			ART UNIT	PAPER NUMBER
			2167	
			MAIL DATE	DELIVERY MODE
			11/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary		Application No.	Applicant(s)				
		10/743,158	AMITAY, EINAT				
		Examiner	Art Unit				
		MICHAEL PHAM	2167				
Period fo	The MAILING DATE of this communication app or Reply	pears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
Status							
1)[\	Responsive to communication(s) filed on 13 A	ugust 2008					
· ·	Responsive to communication(s) filed on <u>13 August 2008</u> .  This action is <b>FINAL</b> .  2b) This action is non-final.						
′=	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
٥/١	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
	closed in accordance with the practice under a	- parte Quayre, 1909 C.D. 11, 40	0.0.210.				
Dispositi	on of Claims						
4)🛛	)⊠ Claim(s) <u>37-45 and 56-63</u> is/are pending in the application.						
	4a) Of the above claim(s) is/are withdrawn from consideration.						
5)	5) Claim(s) is/are allowed.						
· · · · · · · · · · · · · · · · · · ·	6)⊠ Claim(s) <u>37-45 and 56-63</u> is/are rejected.						
· ·	Claim(s) is/are objected to.						
•	Claim(s) are subject to restriction and/o	r election requirement.					
Applicati	on Papers						
9)☐ The specification is objected to by the Examiner.							
10)	The drawing(s) filed on is/are: a)☐ acc	epted or b) dobjected to by the E	Examiner.				
	Applicant may not request that any objection to the	drawing(s) be held in abeyance. See	∌ 37 CFR 1.85(a).				
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority ι	ınder 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>							
2)  Notic 3)  Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	nte				

Art Unit: 2167

#### **Detailed Action**

## Status of claims

- 1. Claims 1-36 and 46-55 have been cancelled.
- 2. Claims 37-45 and 56-63 are pending.
- 3. Claims 37-45 and 56-63 have been examined.

## Specification

- 4. Prior objection directed to claims 46-55 are withdrawn.
- 5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

## Claim Rejections - 35 USC § 101

6. Rejections under 35 U.S.C. 101 are withdrawn due to cancellation of claims.

## Claim Rejections - 35 USC § 103

- 7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2167

8. Claims 37-45 and 56-62 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0091671 by Prokoph (hereafter Prokoph) further in view of U.S. Patent 6571239 by Cole et. al. (hereafter Cole).

#### **Claim 37:**

Prokoph discloses the following claimed limitations:

"receiving user queries;" [0034 lines9-12, the search service 200 is coupled to indexer 206, which allows the client to issue search queries 212 against the search index 207.

Accordingly, receiving user queries (client to issue search queries).]

"searching an index of documents with user queries; and" [0034 lines9-12, the search service 200 is coupled to indexer 206, which allows the client to issue search queries 212 against the search index 207. 0034 lines 2-6, an indexer 206 is coupled to the temporary document store 205 and decomposes the document extract 210 into a set of tokens, e.g. words, keywords, that are then stored together with their positional information in a search index 207. Accordingly, searching an index of documents (207) with user queries (212).]

Prokoph does not explicitly disclose "adding information from at least some of said user queries to said index"

On the other hand, Cole discloses this in figure 2 elements 201, 245, 250, and 255. Col. 4 lines 63-67-Col. 5 lines 1-2, if the user enters a response which indicates satisfaction, the first query stored is parsed into keywords. Each keyword is associated with an object, and optionally,

statistics of date usage are updated for each association. Under Alternative A, the Master Index is updated with theses associations directly.

Accordingly, disclosing adding information (parsed keywords) from at least some of said user queries (first query) to said index (index).

Both Prokoph and Cole are within applicant's same field of endeavor. It would have been obvious to a person of an ordinary skill in the art to have applied the disclosure above of Cole to the disclosure of Prokoph for the purpose of keeping the index provided in Prokoph updated with current usage of query terms. Thereby improving Prokoph's system. In other words, Prokoph discloses indices that associate keywords or terms with documents or other objects. As recognized by Cole, on col. 1 lines 16-18. Therefore, by updating the keyword index with words from queries, it alleviates the problem of queries provided by an audience of users that change due to current events, changing fashion, etc.

#### **Claim 38:**

The combination of Prokoph and Cole disclose in Cole "wherein said adding comprises associating queries with documents retrieved by a search engine." [Figure 1. col. 3 lines 8-9, the queries are passed to a receiver 105. Col. 3 lines 15-19, Under Alternative A, the receiver passes the query to a search Engine which matches the query against the (modified) keyword Index. The keywords in the keyword index are associated with one or more objects in the repository. Accordingly, wherein said adding comprises associating queries (queries/keywords) with

documents (objects) retrieved by a search engine (search engine)]

# **Claim 39:**

The combination of Prokoph and Cole disclose in Cole "wherein said associating comprises determining which of said retrieved documents to associate with said queries and determining which queries to associate with said retrieved documents." [Col. 1 lines 20-24, if the query matches one or more keywords in the index, the data objects associated with those keywords, or a description of these objects, such as a hitlist of titles, thumbnails, etc., are retrieved from the repository and returned to the search engine. Accordingly, wherein said associating comprises determining which of said retrieved documents (objects) to associate with said queries (queries/keywords) and determining which queries (queries/keywords) to associate with said retrieved documents (objects).]

## **Claim 40:**

The combination of Prokoph and Cole disclose in Cole "wherein said adding comprises listing a term in a query and the number of times that term is associated with a document." [Col. 4 lines 63-67-Col. 5 lines 1-2, if the user enters a response which indicates satisfaction, the first query stored is parsed into keywords. Each keyword is associated with an object, and optionally, statistics of date usage are updated for each association. Under Alternative A, the Master Index is updated with theses associations directly. Col. 4 lines 18-20, how long to keep associations between keywords and data objects either in the master keyword index in alternative A or in the auxiliary index in alternative B. Accordingly, wherein said adding comprises listing a term in a

Application/Control Number: 10/743,158

Art Unit: 2167

query (master Index is updated with theses associations) and the number of times (how long to keep) that term (keyword) is associated with a document (associations between keywords and data objects)]

Page 6

## **Claim 41:**

The combination of Prokoph and Cole disclose in Cole "wherein said adding comprises ranking queries associated to documents." [Col. 4 lines 63-67-Col. 5 lines 1-2, if the user enters a response which indicates satisfaction, the first query stored is parsed into keywords. Each keyword is associated with an object, and optionally, statistics of date usage are updated for each association. Under Alternative A, the Master Index is updated with theses associations directly. Col. 4 lines 18-20, how long to keep associations between keywords and data objects either in the master keyword index in alternative A or in the auxiliary index in alternative B. Accordingly, wherein said adding (index updated) comprises ranking queries associated to documents (sorts associations)]

# **Claim 42:**

The combination of Prokoph and Cole disclose in Cole "wherein said ranking comprises ranking said queries according to frequency of usage." [Col. 4 lines 23-25, sorts associations from oldest to newest and from lowest to highest frequency. Accordingly, ranking comprises ranking said queries (sorts associations) according to frequency of usage (frequency of usage)]

## **Claim 43:**

Application/Control Number: 10/743,158

Art Unit: 2167

The combination of Prokoph and Cole disclose in Cole "wherein said ranking comprises ranking

Page 7

said queries according to time of usage." [Col. 4 lines 23-25, sorts associations from oldest to

newest and from lowest to highest frequency. Accordingly, wherein said ranking comprises

ranking said queries (sorts associations) according to time of usage (oldest to newest)]

**Claim 44:** 

The combination of Prokoph and Cole disclose in Cole "wherein said adding comprises updating

said index with at least some of said ranked queries." [Col. 4 lines 23-25, sorts associations from

oldest to newest and from lowest to highest frequency. Col. 4 lines 44-45, associations are then

added to either the master Index. Accordingly, wherein said adding comprises updating said

index (associations are then added to either the master Index) with at least some of said ranked

queries (sorts associations)]

**Claim 45:** 

The combination of Prokoph and Cole disclose in Cole "wherein said updating comprises

filtering out lowly ranked queries." [Col. 4 lines 50-51, if yes, the most deletable association is

deleted to make room. Accordingly, wherein said updating comprises filtering out lowly ranked

queries (the most deletable association is deleted)]

**Claim 56:** 

Prokoph discloses the following claimed limitations:

Application/Control Number: 10/743,158

Art Unit: 2167

"receiving user queries;" [0034 lines9-12, the search service 200 is coupled to indexer 206, which allows the client to issue search queries 212 against the search index 207.

Accordingly, receiving user queries (client to issue search queries).]

Page 8

"searching an index of documents with said user queries;" [ 0034 lines9-12, the search service 200 is coupled to indexer 206, which allows the client to issue search queries 212 against the search index 207. 0034 lines 2-6, an indexer 206 is coupled to the temporary document store 205 and decomposes the document extract 210 into a set of tokens, e.g. words, keywords, that are then stored together with their positional information in a search index 207. Accordingly, searching an index of documents (207) with user queries (212).]

"associating terms in said user queries with documents said terms were used to retrieve; and" [0034 lines 9-12, the search service 200 is coupled to indexer 206, which allows the client to issue search queries 212 against the search index 207. 0034 lines 2-6, an indexer 206 is coupled to the temporary document store 205 and decomposes the document extract 210 into a set of tokens, e.g. words, keywords, that are then stored together with their positional information in a search index 207. Accordingly, associating (issue search queries against the search index) terms in said user queries (client issues search query) with documents (documents) said terms were used to retrieve (issue search queries against the search index)]

Prokoph does not explicitly disclose "adding said terms to an index with which said documents were retrieved."

On the other hand, Cole discloses this in figure 2 elements 201, 245, 250, and 255. Col. 4 lines 63-67-Col. 5 lines 1-2, if the user enters a response which indicates satisfaction, the first query stored is parsed into keywords. Each keyword is associated with an object, and optionally,

statistics of date usage are updated for each association. Under Alternative A, the Master Index is updated with theses associations directly.

Accordingly, disclosing adding said terms (keywords) to an index (index) with which said documents were retrieved (object).

Both Prokoph and Cole are within applicant's same field of endeavor. It would have been obvious to a person of an ordinary skill in the art to have applied the disclosure above of Cole to the disclosure of Prokoph for the purpose of keeping the index provided in Prokoph updated with current usage of query terms. Thereby improving Prokoph's system. In other words, Prokoph discloses indices that associate keywords or terms with documents or other objects. As recognized by Cole, on col. 1 lines 16-18. Therefore, by updating the keyword index with words from queries, it alleviates the problem of queries provided by an audience of users that change due to current events, changing fashion, etc.

#### **Claim 57:**

Prokoph discloses "indicating how frequently said terms occurred in said documents" [0012, number of occurrences of each search term is determined. Accordingly, indicating how frequently (number of occurrences) said terms (term) occurred in said documents (document). ]

However, Prokoph does not explicitly disclose indicating how frequently said terms occurred in "user queries."

On the other hand, Cole discloses col. 4 lines 15-17, number of sessions associated with keywords, to indicate the frequency of use. Accordingly, disclosing indicating how frequently (frequency) said terms (keywords) occurred in user queries (sessions).

Both Prokoph and Cole are within applicant's same field of endeavor. It would have been obvious to a person of an ordinary skill in the art to have applied the disclosure above of Cole to the disclosure of Prokoph for the purpose of keeping the index provided in Prokoph updated with current usage of query terms. Thereby improving Prokoph's system. In other words, Prokoph discloses indices that associate keywords or terms with documents or other objects. As recognized by Cole, on col. 1 lines 16-18. Therefore, by updating the keyword index with words from queries, it alleviates the problem of queries provided by an audience of users that change due to current events, changing fashion, etc.

#### **Claim 58:**

The combination of Prokoph and Cole disclose in Cole "wherein said user queries comprise a portion of the queries used in a session to find a selected document" [Figure 2 and col. 4 lines 15-17, number of sessions associated with keywords, to indicate the frequency of use. Accordingly, wherein said user queries (query) comprise a portion of the queries used in a session (matched keywords) to find a selected document (object)]

## **Claim 59:**

The combination of Prokoph and Cole disclose in Cole "wherein said user queries comprise a first query of a session to find a selected document" [Figure 2 and col. 4 lines 15-17, number of sessions associated with keywords, to indicate the frequency of use. Accordingly, wherein said user queries (query/keyword) comprise a first query (first query) of a session (session) to find a selected document (object)]

## **Claim 60:**

The combination of Prokoph and Cole disclose in Cole "wherein a document associated with a query comprises the document selected by said user" [col. 3 lines 49-51, the end of a session can also be explicitly indicated by a user response, in which the user marks objects as relevant or irrelevant at the user interface. Accordingly, wherein a document (object) associated with a query (query) comprises the document selected by said user (user marks objects)]

## **Claim 61:**

The combination of Prokoph and Cole disclose in Cole "wherein a document associated with a query comprises the document browsed to by said user as a result of a query" [col. 3 lines 49-51, the end of a session can also be explicitly indicated by a user response, in which the user marks objects as relevant or irrelevant at the user interface. Accordingly, wherein a document (object) associated with a query (query) comprises the document browsed to by said user as a result of a query (user marks objects)]

## **Claim 62:**

The combination of Prokoph and Cole disclose in Prokoph "wherein documents associated with a query comprise the higher ranked documents produced from a query."[0008, wherein documents (documents) associated with a query (query) comprise the higher ranked documents (documents on a result list can be scored in an order which represents their relevance to the query..."relevancy ranking") produced from a query (query).]

Art Unit: 2167

9. Claims 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0091671 by Prokoph (hereafter Prokoph) and U.S. Patent 6571239 by Cole et. al. (hereafter Cole) further in view of U.S. Patent Application Publication 2004/0261021 by Mittal et. al. (hereafter Mittal).

## **Claim 63:**

The combination of Prokoph and Cole do not explicitly disclose "wherein said user queries are in a language other than the language of a selected document"

On the other hand, Mittal discloses Queries can be expressed using character sets and/or languages that are different from the character set and/or language of at least some of the data that is to be searched. Accordingly, wherein said user queries (queries) are in a language (using language) other than the language of a selected document (languages that are different from the language of at least some of the data that is searched) is disclosed.

Prokoph, Cole, and Mittal are all directed towards document search and therefore all are within the same field of endeavor as applicant's invention. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Mittal's disclosure above to the combination of Prokoph and Cole for the purpose of allowing various devices to utilize the benefits of the search indices. Devices such as mobile phones would be too tedious for query entry, and further typing in different languages using an ASCII keyboard also would be tedious and slow see 0006 and 0018 of Mittal. Accordingly, by allowing different languages to be entered in as queries, it allows for an improvement in the over all search process.

Art Unit: 2167

# Response to Arguments

10. Applicant's arguments with respect to claims 37-45 and 56-63 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2167

## Conclusion

11. The prior art made of record listed on PTO-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

**12. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2167

# Contact Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Pham whose telephone number is (571)272-3924. The examiner can normally be reached on Monday - Friday 9am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/M. P./ Examiner, Art Unit 2167 /John R. Cottingham/ Supervisory Patent Examiner, Art Unit 2167

Art Unit: 2167